

Attorney's Docket No.: 13909-132001 / 2003P00484 US

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Karsten A. Schultz                          Art Unit : 2192  
Serial No. : 10/628,560                                  Examiner : Isaac Tuku Tecklu  
Filed : July 29, 2003                                      Conf. No. : 4776  
Title : AGGREGATION OF PRIVATE AND SHARED WORKFLOWS

**Mail Stop Amendment**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

PROPOSED AMENDMENT TO CLAIM 16 FOR DISCUSSION

1.-9. (Cancelled)

10. (Previously Presented) A method comprising:

modeling a workflow that includes actual tasks as a first matrix, wherein values of vertices of the first matrix are determined based on interdependencies between the actual tasks;

modeling a workflow view representing an abstraction of the workflow, the workflow view including virtual tasks as a second matrix, wherein values of vertices in the second matrix are determined based on interdependencies between the virtual tasks;

compiling the workflow view that includes the virtual tasks and the workflow including actual tasks, each virtual task corresponding to at least one actual task, into an aggregate workflow;

inserting into the aggregated workflow one or more aggregating routing task pairs, each pair configured to bound a virtual task and an associated actual task such that initiation of the virtual task is based on a status of the associated actual task; and

executing the aggregate workflow.

11. (Cancelled)

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tasks, wherein values of vertices included in a second matrix are based on interdependencies between the virtual tasks; [[and]]

an aggregation engine operable to combine the virtual workflow and the workflow into an aggregated workflow, the aggregated workflow including one or more aggregating routing task pairs, each pair configured to bound a virtual task and an associated actual task such that initiation of the virtual tasks is based on a status of the associated actual task; and

a workflow view repository operable to store the workflow and the virtual workflow.

17. (Original) The system of claim 16 further comprising a workflow engine operable to enact the aggregated workflow.

18. (Original) The system of claim 17 wherein the virtual workflow includes a routing task for interacting with a collaborating virtual workflow.

19. (Previously Presented) The system of claim 18 wherein the aggregation routing task pairs are in series with one another and with the routing task.

20. (Original) The system of claim 17 wherein the aggregated workflow supports concurrent execution of the workflow and the workflow view.

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12. (Previously Presented) The method of claim 10 wherein inserting the one or more aggregation routing task pairs comprises arranging the aggregation routing task pairs in series with one another and with a routing task included within the workflow view for the purpose of executing the workflow view in conjunction with a second workflow view, the second workflow view associated with a second workflow.

13. (Original) The method of claim 10 wherein compiling the workflow view and the workflow comprises:

- linking a first aggregation routing task to an input of a first view task;
- linking a second aggregation routing task to an output of the first view task; and
- linking a first task between the first aggregation routing task and the second aggregation routing task, for parallel execution with the first view task.

14. (Original) The method of claim 13 wherein linking the first task comprises:

- linking the first aggregation routing task to an input of the first task; and
- linking an output of a second task to the second aggregation routing task.

15. (Original) The method of claim 13 further comprising linking the second aggregation routing task to a routing task included within the workflow view, wherein the routing task is in communication with a secondary workflow view associated with a secondary workflow.

16. (Proposed) A system comprising:

- a workflow modeler operable to model a workflow, the workflow including actual tasks, wherein values of vertices included in a first matrix are based on interdependencies between the actual tasks;

- a view modeler operable to model a virtual workflow as an abstraction of the workflow, the virtual workflow including virtual tasks that each correspond to at least one of the actual

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1.-9. (Cancelled)

10. (Previously Presented) A method comprising:  
modeling a workflow that includes actual tasks as a first matrix, wherein values of vertices of the first matrix are determined based on interdependencies between the actual tasks;  
modeling a workflow view representing an abstraction of the workflow, the workflow view including virtual tasks as a second matrix, wherein values of vertices in the second matrix are determined based on interdependencies between the virtual tasks;  
compiling the workflow view that includes the virtual tasks and the workflow including actual tasks, each virtual task corresponding to at least one actual task, into an aggregate workflow;  
inserting into the aggregated workflow one or more aggregating routing task pairs, each pair configured to bound a virtual task and an associated actual task such that initiation of the virtual task is based on a status of the associated actual task; and  
executing the aggregate workflow.

11. (Cancelled)

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12. (Previously Presented) The method of claim 10 wherein inserting the one or more aggregation routing task pairs comprises arranging the aggregation routing task pairs in series with one another and with a routing task included within the workflow view for the purpose of executing the workflow view in conjunction with a second workflow view, the second workflow view associated with a second workflow.

13. (Original) The method of claim 10 wherein compiling the workflow view and the workflow comprises:

- linking a first aggregation routing task to an input of a first view task;
- linking a second aggregation routing task to an output of the first view task; and
- linking a first task between the first aggregation routing task and the second aggregation routing task, for parallel execution with the first view task.

14. (Original) The method of claim 13 wherein linking the first task comprises:

- linking the first aggregation routing task to an input of the first task; and
- linking an output of a second task to the second aggregation routing task.

15. (Original) The method of claim 13 further comprising linking the second aggregation routing task to a routing task included within the workflow view, wherein the routing task is in communication with a secondary workflow view associated with a secondary workflow.

*(Currently Amended)*

16. A system comprising:

- a workflow modeler operable to model a workflow, the workflow including actual tasks, wherein values of vertices included in a first matrix are based on interdependencies between the actual tasks;
- a view modeler operable to model a virtual workflow as an abstraction of the workflow, the virtual workflow including virtual tasks that each correspond to at least one of the actual

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tasks, wherein values of vertices included in a second matrix are based on interdependencies between the virtual tasks; [[and]]

an aggregation engine operable to combine the virtual workflow and the workflow into an aggregated workflow, the aggregated workflow including one or more aggregating routing task pairs, each pair configured to bound a virtual task and an associated actual task such that initiation of the virtual tasks is based on a status of the associated actual task; and

a workflow view repository operable to store the workflow and the virtual workflow.

17. (Original) The system of claim 16 further comprising a workflow engine operable to enact the aggregated workflow.

18. (Original) The system of claim 17 wherein the virtual workflow includes a routing task for interacting with a collaborating virtual workflow.

19. (Previously Presented) The system of claim 18 wherein the aggregation routing task pairs are in series with one another and with the routing task.

20. (Original) The system of claim 17 wherein the aggregated workflow supports concurrent execution of the workflow and the workflow view.